but are an indirect result of the germinal instability occasioned by crossing in the ancestry.

It is to be hoped that further study of this new series of forms, with particular regard to the manner of origin of the mutant types, together with crossing experiments with the *O. Lamarckiana* series, will throw further light upon the nature of the mutation processes in Oenothera. R. R. Gates.

14 Well Walk, Hampstead, N.W.

William Herschel and his "Desertion."

In the valuable discourse on Sir William Herschel delivered at the Royal Institution on April 26 by Sir George Darwin, the well-known story of the desertion of the young bandsman from the Hanoverian Guards has been alluded to (Nature, August 15, p. 620). A week or two after the delivery of this discourse the "Scientific Papers of Sir William Herschel" were published by the Royal Society and the Royal Astronomical Society, and in the introduction to that work there is given a detailed account of how Herschel left the army, written by himself and corroborated by the still existing official discharge, signed by the colonel of the Guards in 1762. As many readers of Nature may not come across that work, it may be of use to give a summary of the facts here.

After the battle of Hastenbeck (July, 1757) young Herschel (eighteen years of age) left the army and went home to Hanover, on the suggestion of his father. But on his arrival there he found that as a non-combatant he was liable to be pressed into the army at any moment. He therefore at once (or very soon) returned to his regiment, putting on his uniform again (not taking it off, as stated) when he had passed the sentries at Herrenhausen. He remained with the army till the following September, when he finally left it, as his father pointed out to him that there could be no objection to his doing so, since he had not taken the oath when he joined the band as a boy of fourteen. He then went straight to Hamburg without going home first, and proceeded to England, where he had spent five or six months in the previous year and where he wished to settle. In March, 1762, he obtained a formal discharge, which is now printed in my above-mentioned introductory memoir. The story, originally published by Airy on the authority of the Duke of Sussex, that George III. in 1782 handed Herschel a formal "pardon," must therefore have been due to some misunderstanding or other.

J. L. E. Dreyer.

Armagh Observatory, August 23.

The Disintegration of Metals at High Temperatures.

During experiments on the disintegration of metals, particularly those which are not supposed to combine directly with oxygen, such as certain metals of the platinum group, I have found the disintegration to be due to the direct formation of an oxide. The loss of weight of a hot platinum wire, for instance, is zero in nitrogen, in hydrogen, and in a vacuum. By means of an expansion apparatus, all metals tried are found to give nuclei when oxygen is present, but not when it is absent, either in other gases or in a vacuum. The occluded gases come off in a vacuum in molecular aggregations, but there is no evidence that they bring particles of the metal with them. The loss of weight cannot be due to volatilisation, as it diminishes with diminution of pressure of surrounding oxygen.

By weighing experiments, the weight of oxygen absorbed and of platinum lost correspond to the formation of a hitherto unknown oxide of platinum. This oxide is deposited upon the walls of the containing vessel as a black powder; on being heated it turns to the metal, producing a platinum mirror. Microscopic examination does not reveal any evidence of crystals, either in the black powder or in the mirror. If, however, a piece of glass having such a deposit, and having been heated in different places, is boiled in aqua regia, the parts where the metallic mirror has been formed by heating become clear very quickly, whilst the black powder, where it has not been heated, remains unaffected. J. H. T. Roberts.

University of Liverpool, August 20.

September Meteor-showers.

The following meteor-showers become due during the month of September:—

Epoch September 4, 19h. 30m. (G.M.T.), nineteenth order of magnitude. Principal maximum, September 4, 6h. 10m.; secondary maxima, September 3, 7h. 40m., and September 4, 18h.

Epoch September 7, 3h. 30m., approximately first order of magnitude. Principal maxima, September 6, 2h. 15m., and September 7, 21h. 5m.; secondary maxima, September 7, 12h. 30m., and September 8, 20h. 40m.

Epoch September 7, 2h., approximately first order of magnitude. Principal maximum, September 6, 6h. 30m.; secondary maxima, September 5, 11h. 20m., and September 6, 23h. 55m.

Epoch September 9, 15h. 30m., approximately seventeenth order of magnitude. Principal maximum, September 7, 22h. 50m.; secondary maximum, September 9, 13h.

Epoch September 9, 14h., sixteenth order of magnitude. Principal maximum, September 8, 10h. 15m.; secondary maximum, September 8, 2h. 35m.

Epoch September 12, 20h., thirty-fifth order of magnitude. Principal maxima, September 9, 18h. 25m., and September 11, 14h. 30m.

Epoch September 8, 17h. 30m., approximately seventeenth order of magnitude. Principal maxima, September 9, 22h. 45m., and September 11, 18h. 45m.; secondary maximum, September 9, 8h. 34m.

Epoch September 16, 8h., sixteenth order of magnitude. Principal maxima, September 13, 10h. 30m., and September 15, 6h. 35m.; secondary maximum, September 15, 14h. 30m.

Epoch September 14, 22h. 30m., eleventh order of magnitude. Principal maximum, September 13, 22h. 25m.; secondary maxima, September 12, 12h. 50m., September 13, 18h. 30m., and September 14, 8h. 50m.

Epoch September 16, 9h. 30m., twelfth order of magnitude. Principal maximum, September 14, 16h. 50m.; secondary maximum, September 16, 4h. 55m.

Epoch September 15, 4h. 30m., tenth order of magnitude. Principal maximum, September 14, 20h. 45m.; secondary maximum, September 13, 0h. 40m.

Epoch September 14, 15h., eleventh order of magnitude. Principal maxima, September 15, 18h. 25m., and September 17, 14h. 25m.; secondary maximum, September 17, 2h. 35m.

Epoch September 19, 21h. 30m., approximately seventh order of magnitude. Principal maximum, September 21, 2h. 35m.; secondary maxima, September 20, 8h. 45m., and September 21, 6h. 30m.

Epoch September 21, 9h. 30m., third order of magnitude. Principal maximum, September 22, 22h. 35m.; secondary maxima, September 23, 2h. 30m., and September 24, 22h. 25m.

Epoch September 25, 15h. 30m., fourteenth order of magnitude. Principal maximum, September 23

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20h. 50m.; secondary maxima, September 24, 0h. 45m., and September 25, 9h. 50m.

Epoch September 27, 8h., seventeenth order of magnitude. Principal maximum, September 26, 7h. 30m.; secondary maxima, September 25, 20h. 40m., and September 26, 18h. 25m.

Epoch September 28, 15h. 20m., sixth order of magnitude. Principal maximum, September 27, 5h. 45m.; secondary maxima, September 28, 3h. 30m., and 10h. 30m.

There is a considerable amount of meteoric activity in September, the first maximum of importance occurring on September 4, 6h. 10m. The principal maxima that become due on September 6, especially the first of them, and the principal maximum that falls on September 7, 21h. 5m., are of very high intensity. The principal maxima also are interesting that occur on September 13, 10h. 30m., and on the three days September 21–23. JOHN R. HENRY.

August 26.

A Flower Sanctuary.

SOME of the correspondence in your columns on the subject of the flora of the Cheddar Cliffs seems to assume that the Somerset County Council has a power to "proclaim" the flowers in question, that is, to protect them from being gathered, and that it has not exercised this power. I should be much indebted to any of your correspondents who can show me what power the council possesses to protect particular flowers, or how a bye-law can be framed for this purpose with any chance of its being valid. I think it will be found that, without further legislation, County Councils are powerless to afford the protection desired. EDW. FRY.

Failand House, Failand, nr. Bristol.

A Point in Geological Nomenclature.

WITH reference to Mr. A. Irving's communication under this heading in NATURE of August 15 (p. 608), the term *Quartär,* as German equivalent of our "Quaternary" or "Post-tertiary," is by no means a speciality of Prof. Credner, but the designation generally accepted by all German geologists since Naumann.

F. von Hochstetter (Vienna) used *Quartär* long before Credner, and it appears in the "Flötzformationslehre," written in 1856 by B. von Cotta, who succeeded Naumann in 1842 at the Mining Academy of Freiberg. F. GILLMAN.

16 Glebe Road, West Bridgford,
Nottingham, August 17.

BOATS AND LIFE-SAVING APPLIANCES ON SHIPS.

AT the time when the *Titanic* was lost the standing Advisory Committee appointed by the Board of Trade under the provisions of Merchant Shipping Acts was engaged in the reconsideration of the regulations for boats and life-saving appliances. A report had been presented by the committee recommending an extension of the previously existing scale for boats, so as to include the largest passenger steamers; and in the course of the inquiry by Lord Mersey and his colleagues an investigation was made of the causes of an apparently long delay on the part of the Marine Department of the Board of Trade in dealing with that report. Satisfactory explanations were forthcoming; but, in view of the great calamity that had occurred, it was obvious that the committee must reconsider the whole subject. That action was ordered by Mr. Buxton, and the committee received special instructions, its opinion being requested in regard to existing statutory regulations for boats and life-saving appliances on ships generally, and suggestions being invited in regard to "means calculated to diminish the risk or to mitigate the effects of accidents to vessels at sea."

Obviously a wide field of inquiry was laid open by these instructions; and in order to deal with this task efficiently the committee decided to co-opt additional members. A number of eminent men—shipowners, shipbuilders and professional officers of the great registration societies—were invited to join. Captain Watt, formerly commodore of the Cunard Line, was also co-opted, as his experience in command of trans-Atlantic passenger steamers had been altogether exceptional and had only recently been terminated as captain of the great steamship *Lusitania.* The original committee had been both strong and representative, so that the final report—now published as a Blue-book (Cd. 6353, 1912)—represents the views of men of great experience in the construction, command, navigation and ownership of shipping.

Since the report appeared, criticisms have been bestowed upon the constitution of the committee, which has been thought to have been biassed in favour of the shipowners of the United Kingdom. A certain confusion of thought underlies such criticism. The committee was intended to be representative of all classes interested in, and having special experience of, shipping. Its functions are purely advisory; the Board of Trade reserves the right of dealing with all recommendations made by the committee, and the framing of all regulations; and in this manner, as experience has shown, the public interests have been well safeguarded. Moreover, a perusal of the report and of the Minority Reports and Reservations—of which there are five—furnishes no real ground for the criticisms to which allusion has been made.

Apart from its expressions of opinion and its recommendations for future practice, the report is of great value as a summary of facts. Five sub-committees were appointed, and their reports form parts of the main report. The first of these sub-committees dealt with types of boats; the second with wireless telegraphy; the third with steamship routes; the fourth with vessels employed to carry passengers in the home trade; the fifth with statistical information. This last sub-committee consisted solely of the chairman (Sir Norman Hill) and the secretary (Mr. Matthew); and the report really embodies returns (relating to the subjects treated) for which the Board of Trade is primarily responsible, although the comments thereon are probably the work of the chairman—a gentleman whose opinions on shipping questions are entitled to respect. It is impossible in this brief notice even to enumerate the contents of the fifth report; all that can be said here is that the extraordinary degree of safety for life and property

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